first surface and at least one second electrode (6) disposed on said second surface of the at least one dielectric as a capacitive component.

REMARKS

Claims 2 and 5 have been amended to eliminate the grammatical and spelling errors pointed out by the Examiner.

Claims 1, 9, 10, 11 and 12 have been amended so that proper Markush terminology is now employed in these claims

Claims 2 and 8 have also been amended to correct the terminology which the Examiner considers to be confusing and therefore to have rendered these claims indefinite. As amended, it is considered that Claims 2 and 8 are no longer rejectable under 35 U.S.C. 112, second paragraph as being indefinite for reasons given by the Examiner.

The rejection of Claims 1, 2, 6, 8-12 under 35 U.S.C. 102(b) as anticipated by Findikoglu et al. is considered to lack merit.

The Findikoglu et al. patent is not considered to teach, or even suggest, the ceramic passive component defined by even Claim 1, the most generic claim of this group.

Unlike the electrode having a surface disposed on a substrate in the component defined by Claim 1, the

electrode of the component of the Findikoglu et al. patent that has a surface disposed in a substrate (superconducting electrode 11) is not formed of a metal or an alloy but instead is formed of a metal oxide.

The rejection of Claims 3-5 and 7 under 35 U.S.C. 1032(a) as unpatentable over Findikoglu et al. is considered to lack merit.

The Findikoglu et al. patent is not considered to teach or even suggest the ceramic components defined by Claims 3-5 and 7 for reasons given in regard to parent claim 1.

In addition there is no teaching, or even suggestion, in this patent that either of the electrodes be formed of at least two electrically conducting layers as in the component defined by Claims 3-5. There is also no teaching, or even suggestion, in this patent that one of the conducting layers of the first or second electrode comprise Ti, Cr, Ni, or W or an alloy of Ni and Cr or an alloy of Ti and W as recited in Claim 4. Additionally, there is no teaching, or even suggestion, in this patent that the dielectric having a first surface deposed on the second surface of the first electrode 9 insulator layer 30 comprise multiple layers as in the component defined by Claim 7.

The Examiner's contention that the above-noted additional features in the components defined by Claims 3-5 and 7 are within the general skill of a worker in the art is considered to be without merit in the absence of any prior art evidence to indicate that such features would be known to a person of ordinary skill in the art.

An early allowance of the claims and case is requested.

The Commissioner is hereby authorized to credit any overpayment or charge any fee (except the issue fee) to Account No. 14-1270.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited this date with the United States Postal Service as first-class mail in an envelope addressed to:

COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

On Dec. 19, 2001

By Norman N. Spain

APPENDIX

1. (Twice Amended) A ceramic passive component which comprises a carrier substrate (1),
at least one first electrode (2) ~~comprising a metal or alloy~~ formed of a material selected from the group consisting of metal and alloys and alloys and ~~(2)~~ having a first surface disposed, on the substrate,
at least one dielectric (5) having a first surface disposed, on a second surface of the at least one first electrode opposing said first surface of the at least one first electrode, and
at least one second electrode (6) disposed on a second surface of the at least one dielectric opposing said first surface of the at least one dielectric,
wherein the at least one dielectric (5) comprises a ferroelectric ceramic material with a voltage-dependent relative dielectric constant ε_r .

2. (Twice Amended) A ceramic passive component as claimed in claim 1, wherein the ferroelectric ceramic material with a voltage-dependent dielectric constant ε_r is a material selected from the group consisting of:

$Pb(Zr_xTi_{1-x})O_3$ $(0 \leq x \leq 1)$ with and without excess lead, $Ba_{1-x}Sr_xTiO_3$ $(0 \leq x \leq 1)$,

$Pb_{1-1.5y}La_y(Zr_xTi_{1-x})O_3$ $(0 \leq x \leq 1,\ 0 \leq y \leq 0.2)$, $Pb(Zr_xTi_{1-x})O_3$ $(0 \leq x \leq 1)$ doped with Nb, $Pb_{1-\alpha y}\ La_yTiO_3$ $(0 \leq y \leq 0.3,\ 1.3 \leq \alpha \leq 1.5)$, $(Pb,Ca)TiO_3$, $BaTiO_3$ with and without dopants, $SrZr_xTi_{1-x}O_3$ $(0 \leq x \leq 1)$ with and without Mn dopants, $BaZr_xTi_{1-x}O_3$ $(0 \leq x \leq 1)$, $SrTiO_3$ doped with, for example, La, Nb, Fe or Mn,

$(Pb(Mg_{1/3}Nb_{2/3})O_3)_x$-$(PbTiO_3)_{-x}$ $(0 \leq x \leq 1)$,

$(Pb,Ba,Sr)(Mg_{1/3}Nb_{2/3})_xTi_y(Zn_{1/3}Nb_{2/3})_{1-x-y}O_3$ $(0 \leq x \leq 1,\ 0 \leq y \leq 1,\ x + y \leq 1)$, $PbNb_{4/5x}((Zr_{0.6}Sn_{0.4})_{1-y}Ti_y))_{1-x}O_3$ $(0 \leq x \leq 0.9,\ 0 \leq y \leq 1)$, $(Ba_{1-x}Ca_x)TiO_3$ $(0 \leq x \leq 1)$,

$(Ba_{1-x}Sr_x)TiO_3$ $(0 \leq x \leq 1)$, $(Ba_{1-x}Pb_x)TiO_3$ $(0 \leq x \leq 1)$, $(Ba_{1-x}Sr_x)(Ti_{1-x}Zr_x)O_3$ $(0 \leq x \leq 1,\ 0 \leq y \leq 1)$,

(a) $Pb(Mg_{1/2}W_{1/2})O_3$,

(b) $Pb(Fe_{1/2}Nb_{1/2})O_3$,

(c) $Pb(Fe_{2/3}W_{1/3})O_3$,

(d) $Pb(Ni_{1/3}Nb_{2/3})O_3$,

(e) $Pb(Zn_{1/3}Nb_{2/3})O_3$,

(f) $Pb(Sc_{1/2}Ta_{1/2})O_3$,

as well as combinations of any of the ~~compounds~~ materials ~~a)~~ (a) to ~~f)~~ (f) with $PbTiO_3$ and $Pb(Mg_{1/3}Nb_{2/3})O_3$ with and without excess lead.

5. (Twice Amended) A ceramic passive component as claimed in claim 3, wherein the second electrically conducting layer of the at least one first electrode (2) or of the at least one second ~~electrod~~ electrode (6) comprises a metal or an alloy.

8. (Twice Amended) A ceramic passive component as claimed in claim 1, wherein a protective layer (7) ~~of an inorganic material and/or an organic material~~ is laid over the entire component.

9. (Twice Amended) A voltage-controlled oscillator with as its capacitive component a ceramic passive component which comprises a carrier substrate (1), at least one first electrode (2) ~~comprising a metal or an alloy~~ formed of a material selected from the group consisting of metal and alloys and having a first surface disposed~~,~~ on the substrate, at least one dielectric (5) having a first surface disposed, on a second surface, opposed to said first surface of the at least first electrode, and at least

a second electrode (6) disposed on a second surface of the at least one dielectric, opposed to said first surface of the at least one dielectric, wherein the at least one dielectric (5) comprises a ferroelectric ceramic material with a voltage-dependent relative dielectric constant ε_r .

10. (Twice Amended) A filter with as its capacitive component a ceramic passive component which comprises a carrier substrate (1), at least one first electrode (2) ~~comprising a metal or alloy~~ formed of a material selected from the group consisting of metals and alloys and having a first surface disposed on the substrate, at least one dielectric (5) having a first surface disposed on a second surface of the at least one first electrode opposed to said first surface and at least one second electrode (6) having a surface disposed on said second surface of the at least one dielectric wherein the at least one dielectric (5) comprises a ferroelectric ceramic material with a voltage-dependent relative dielectric constant ε_r .

11. (Twice Amended) A delay line with as its capacitive component a ceramic passive component which comprises a carrier substrate (1), at least one first electrode ~~comprising a metal or alloy~~ formed of a material

selected from the group consisting of metal and alloys and (2) having a first surface disposed on the substrate at least one dielectric (5) having a first surface disposed on a second surface of the one first electrode opposed to said first surface and at least one a second electrode (6) having a surface disposed on said second surface of the at least one dielectric wherein the at least one dielectric (5) comprises a ferroelectric ceramic material with a voltage-dependent relative dielectric constant ε_r .

12. (Twice Amended) ~~The use of a~~ A capacitive ceramic ~~passive component which comprises~~ comprising a carrier substrate (1), at least one first electrode (2) ~~comprising a metal or alloy~~ formed of a material selected from the group consisting of metals and alloys and having a first surface disposed on the substrate at least one dielectric (5) with a voltage-dependent relative dielectric constant ε_r having a second surface opposed to said first surface disposed on a second surface of the at least one first electrode opposed to said first surface and at least one second electrode (6) disposed on said second surface of the at least one dielectric as a capacitive component.